RADIAL PATTERN DIFFUSERS WITH FILTERS

- UNIQUE DESIGN
- HEPA OR ULPA FILTERS
- HINGED FACE
- STAINLESS STEEL

Models:

92RPDF-2SS 180° Pattern

92RPDF-1SS 90° Pattern

Model 92RPDF-2SS

The **Model 92RPDF Series Radial Pattern Diffusers with Filters** have been designed to provide low aspiration and high ventilation rates especially for cleanroom applications such as research laboratories, bio-technology facilities, animal labs, semi-conductor manufacturing, food processing, hospital rooms and computer rooms. The unique design of solid baffles in an intrusive perforated face can handle large volumes of air with low initial face velocities. They are designed with an integral 'knife-edge' frame to accommodate a Gel Seal HEPA or ULPA filter. The filters can be easily removed and replaced from the face of the unit. These high quality filters incorporate a separatorless 2" (51) deep media, integral test port and an anodized aluminum gel seal frame.

The **92RPDF-2SS** model introduces air in a semi-cylindrical 180° radial flow pattern, flushing a room with large volumes of clean conditioned air, minimizing entrainment and hence mixing with contaminated air, while still allowing low room air velocities. The **92RPDF-1SS** model introduces air in a 90° radial flow pattern for perimeter applications.

FEATURES:

• Unique curved face design is pleasing to the eye. No unsightly sharp angles.

• Engineered design and performance are the result of extensive laboratory testing.

Standard **92RPDF-2SS** model has a true 180° radial air pattern.

Model **92RPDF-1SS** has a 90° radial pattern for perimeter applications.

• The face of the diffuser is attached to the plenum with two stainless steel hinges. The opposite side is secured with 1/4 turn fasteners.

• The diffuser face simply hinges down for easy access to the interior for cleaning and sanitation.

• Type 304 stainless steel perforated face has 3/32" (2.4) dia. holes on 60° 1/4" (6) staggered centers (13% free area).

• Integral 'knife-edge' frame accommodates Gel Seal HEPA or ULPA filters.

• Clear anodized extruded aluminum filter frame with a removable test port for damper adjustment, filter pressure drop measurement or to perform leakage (scan) tests.

• HEPA Filter (99.99% on 0.3 µm) is supplied as standard.

• Filters are packaged independently from the diffuser for final installation in the field (by others).

• Round inlets for simple duct connection.

• Standard unit designed for both lay-in T-Bar ceiling systems and surface mount applications.

• Integral earthquake hanger tabs are standard.

Material: 304 Stainless Steel face, backpan and baffles.

Finish: #3 Satin Polished finish is standard. Other finishes are available.

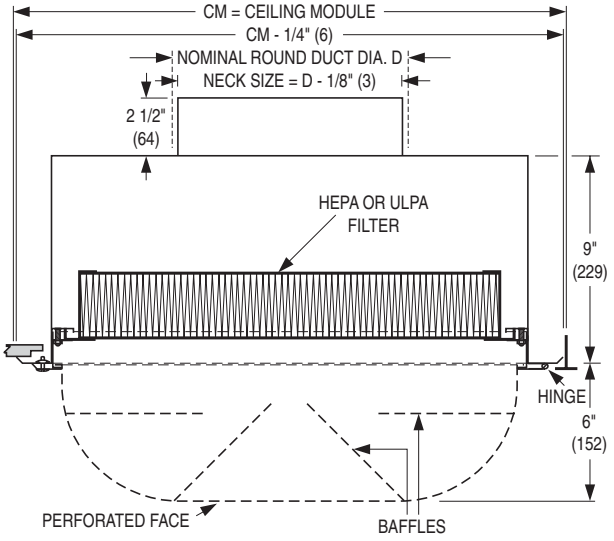
Options:

- 316 Stainless Steel construction.
- UL ULPA Filter (99.9995% on 0.12 µm).
- AW Appliance White finish.

Dimensional Data

Model Series 92RPDF Stainless Steel • Radial Pattern Diffusers with Filters

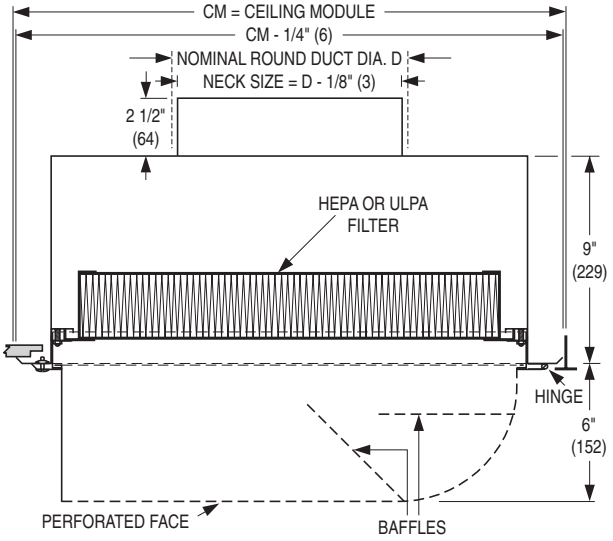
Model 92RPDF-2SS 180° Pattern



Ceiling Module Sizes

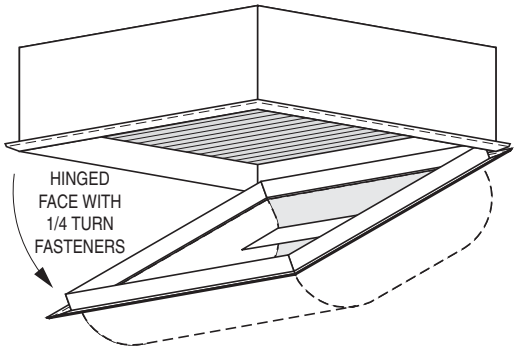
Imperial Modules				Metric Modules	
Imperial Units (inches)		S.I. Units (mm)		S.I. Units (mm)	
D	CM	D	CM	D	CM
8	24 x 24	203	610 x 610	203	600 x 600
12	48 x 24	305	1219 x 610	305	1200 x 600

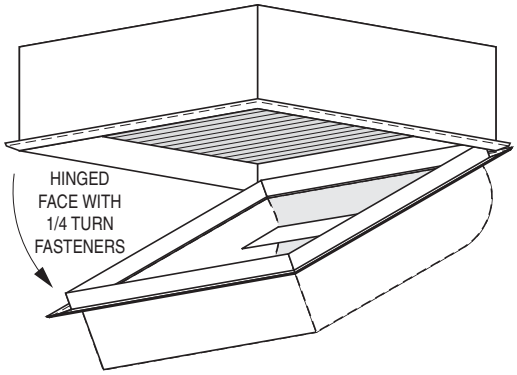
Model 92RPDF-1SS 90° Pattern



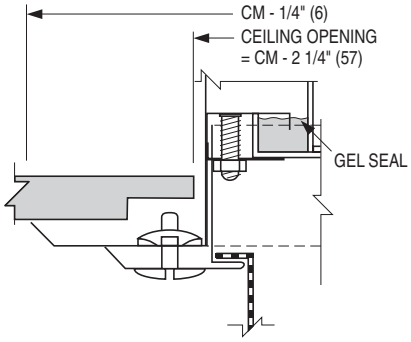
Ceiling Module Sizes

Imperial Modules				Metric Modules	
Imperial Units (inches)		S.I. Units (mm)		S.I. Units (mm)	
D	CM	D	CM	D	CM
8	48 x 12	203	1219 x 305	203	1200 x 300
8	24 x 24	203	610 x 610	203	600 x 600
12	48 x 24	305	1219 x 610	305	1200 x 600

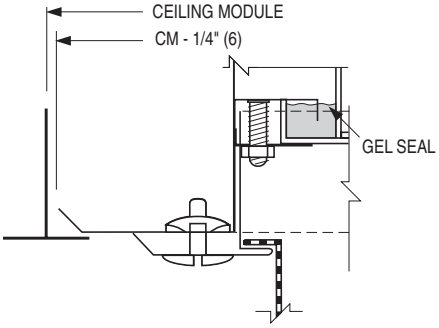




Type S Surface Mount Detail



Type L Lay-in T-Bar Detail



HOW TO SPECIFY OR TO ORDER

(Show complete Model Number and Size, unless "Default" is desired).

Stainless Steel Radial Pattern Diffusers with Filters – Model Series 92RPDF

92RPDF-2SS - 08 - 24 x 24 - L - #3 - HE - —

MODEL

Type 304 Stainless Steel

- 180° Pattern 92RPDF-2SS
- 90° Pattern 92RPDF-1SS

ROUND INLET SIZE

(inches)	(mm)
08	(203)
12	(305)

CEILING MODULE SIZE

Imperial Modules

(inches)	(mm)	
- 48 x 12	(1219 x 305)	(Model 92RPDF-1SS only)
- 24 x 24	(610 x 610)	
- 48 x 24	(1219 x 610)	

Metric Modules (mm)

- 1200 x 300 (Model 92RPDF-1SS only)
- 600 x 600
- 1200 x 600

OPTIONS

- None (default) —
- 316 Stainless Steel Construction 316

FILTER

- HEPA Filter (default) (99.99% on 0.3 µm) HE
- ULPA Filter (99.9995% on 0.12 µm) UL
- Filter by Others FBO

FINISH

- #3 Satin Polished (default) #3
- Appliance White AW
- Special Custom Color SP

FRAME TYPE

- Lay-in T-Bar L
- Surface Mount S

Note:

1. Consult dimensional data as to limitations of model, module and neck size combinations.

SUGGESTED SPECIFICATION:

Furnish and install **Nailor Model** (select one) **92RPDF-2SS** (180° pattern) or **92RPDF-1SS** (90° pattern) **Radial Pattern Ceiling Diffusers with Filters** of the sizes and types shown on the plans and air distribution schedules. The diffusers shall be constructed entirely from 304 stainless steel (316 optional), minimum 24 gauge. The perforated face of the diffuser shall have 13% free area with 3/32" (2.4) dia. holes on 60°, 1/4" (6) staggered centers. The face shall have rounded corners and integral distribution baffles to provide a low velocity, non-aspirating radial air pattern. The face shall have 1/4 turn fasteners on one side and hinges on the other to allow for access to the interior for cleaning. Integral earthquake hanger tabs shall be included with all units. All exposed surfaces shall have a #3 satin polished finish (optional finishes are available).

The diffuser plenum shall incorporate an integral filter frame to accommodate a Gel Seal filter. Filters shall be securely held in place by at least four mounting brackets allowing filter removal from the face of the diffuser without disturbing installed ductwork or the diffuser mounting surface. Filters shall incorporate a removable test port, to measure filter pressure drop, perform leakage (scan) tests and to adjust the optional dampers without removing the filter. The filters efficiency shall be HEPA: 99.99% minimum removal efficiency on 0.30 micrometer particle size (ULPA: 99.9995% minimum removal efficiency on 0.12 micrometer particle size optional). Filters shall incorporate an anodized extruded aluminum frame and a 2" (51) deep separatorless filter pack. All filters shall be UL 900 Class I Listed and Factory Mutual Approved. All filters shall be individually scan tested per Section 6.2 of IEST-RP-CC034.1. Filters are to be packaged independently from the diffuser for final installation of the filter in the field (by others).

The manufacturer shall provide published performance data for the diffuser, which shall be tested in accordance with ANSI/ASHRAE Standard 70 – 1991.

Performance Data

Model 92RPDF-2SS • 180° Pattern

With HEPA Filter • 99.99% Minimum Removal Efficiency on 0.30 Micrometer Particle Size

Imperial Units

24" x 24" or 600 mm x 600 mm Module Size • 8" (203 mm) dia. Inlet • ΔT – 10°F (5.5°C)

Airflow CFM	Pt	Ps	NC	T Horizontal Throw @			T Vertical Throw @		
				100 FPM	75 FPM	50 FPM	100 FPM	75 FPM	50 FPM
100	.14	.14	–	0.5	0.5	1.0	0.5	1.0	1.5
150	.32	.31	–	0.5	1.0	1.0	1.0	1.0	2.0
200*	.57	.55	16	0.5	1.0	1.5	1.5	2.0	3.0
250	.89	.86	19	1.0	1.5	2.0	2.0	2.5	3.5
295**	1.24	1.19	22	1.0	1.5	2.0	2.5	3.0	4.0

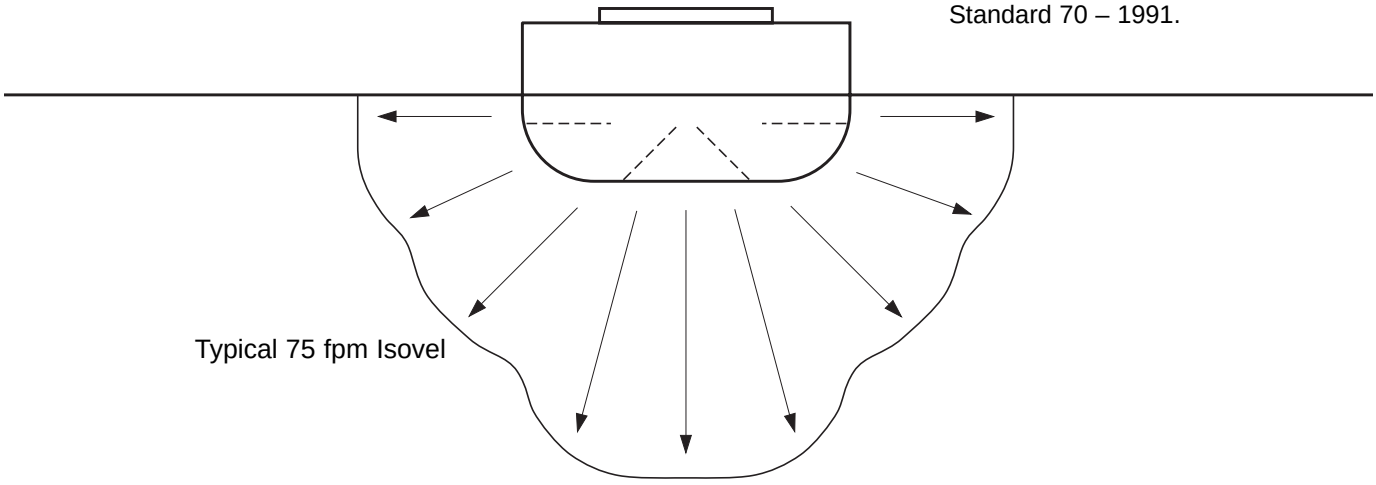
48" x 24" or 1200 mm x 600 mm Module Size • 12" (305 mm) dia. Inlet • ΔT – 10°F (5.5°C)

Airflow CFM	Pt	Ps	NC	T Horizontal Throw @			T Vertical Throw @		
				100 FPM	75 FPM	50 FPM	100 FPM	75 FPM	50 FPM
300	.22	.22	–	0.5	0.5	1.0	0.5	1.0	1.5
400	.40	.38	–	0.5	1.0	1.5	0.5	1.0	2.0
500*	.62	.60	19	1.0	1.0	1.5	1.0	1.5	2.0
600	.90	.86	23	1.0	1.5	2.0	1.5	2.0	2.5
715**	1.27	1.22	28	1.5	2.0	2.5	2.0	2.5	3.0

CFM - cubic feet per minute
FPM - feet per minute velocity
Pt - total pressure - inches w.g.
Ps - static pressure - inches w.g.
T - throw in feet
NC - Noise Criteria (values) based on 10 dB room absorption, re 10^{-12} watts.

Performance Notes:

1. The radial flow pattern of the **92RPDF-2SS** is unlike conventional air distribution devices. The data presented above describes isovels by average terminal velocity in both horizontal and vertical directions.
2. ΔT is the temperature difference between supply and room air. Testing is based on 10°F (5.5°C) cooling.
3. Performance data is for diffusers with clean filters. Filters may be operated up to a final resistance of 2" w.g. (500 Pa).
4. * Recommended maximum airflow is based on 100 fpm (0.51 m/s) velocity per square foot of filter media face area.
** Maximum airflow shown is based on 150 fpm (0.76 m/s) velocity per square foot of filter media face area. Exceeding these airflows may result in reduced filter efficiencies.
Refer to the engineering section for more details.
5. Data derived from tests conducted in accordance with ANSI/ASHRAE Standard 70 – 1991.



Typical 75 fpm Isovel

Performance Data

Model 92RPDF-2SS • 180° Pattern

With HEPA Filter • 99.99% Minimum Removal Efficiency on 0.30 Micrometer Particle Size

Metric Units

610 mm x 610 mm or 600 mm x 600 mm Module Size • 8" (203 mm) dia. Inlet • ΔT – 10°F (5.5°C)

Airflow L/S	Pt	Ps	NC	T Horizontal Throw @			T Vertical Throw @		
				0.51 M/S	0.38 M/S	0.25 M/S	0.51 M/S	0.38 M/S	0.25 M/S
47	35	35	–	0.2	0.2	0.3	0.2	0.3	0.5
71	80	77	–	0.2	0.3	0.3	0.3	0.3	0.6
94 *	142	137	16	0.2	0.3	0.5	0.5	0.6	0.9
118	221	214	19	0.3	0.5	0.6	0.6	0.8	1.1
139**	308	296	22	0.3	0.5	0.6	0.8	0.9	1.2

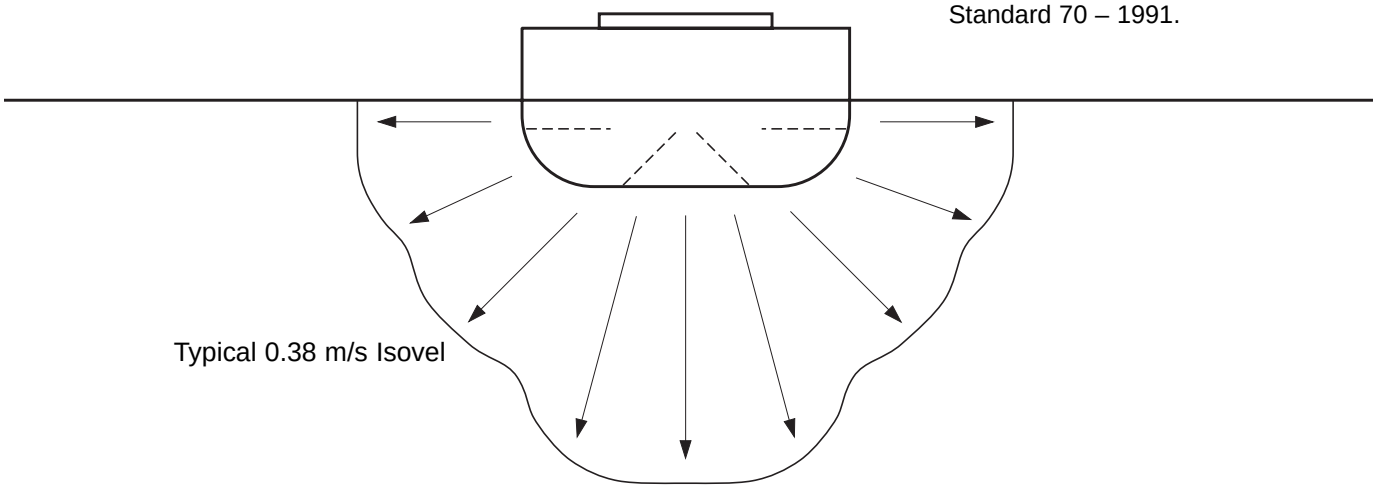
1219 mm x 610 mm or 1200 mm x 600 mm Module Size • 12" (305 mm) dia. Inlet • ΔT – 10°F (5.5°C)

Airflow L/S	Pt	Ps	NC	T Horizontal Throw @			T Vertical Throw @		
				0.51 M/S	0.38 M/S	0.25 M/S	0.51 M/S	0.38 M/S	0.25 M/S
142	55	55	–	0.2	0.2	0.3	0.2	0.3	0.5
189	99	94	–	0.2	0.3	0.5	0.2	0.3	0.6
236*	154	149	19	0.3	0.3	0.5	0.3	0.5	0.6
283	224	214	23	0.3	0.5	0.6	0.5	0.6	0.8
337**	316	303	28	0.5	0.6	0.8	0.6	0.8	0.9

L/S - litres per second
M/S - meters per second velocity
Pt - total pressure - Pa
Ps - static pressure - Pa
T - throw in meters
NC - Noise Criteria (values) based on 10 dB room absorption, re 10^{-12} watts.

Performance Notes:

1. The radial flow pattern of the **92RPDF-2SS** is unlike conventional air distribution devices. The data presented above describes isovels by average terminal velocity in both horizontal and vertical directions.
2. ΔT is the temperature difference between supply and room air. Testing is based on 10°F (5.5°C) cooling.
3. Performance data is for diffusers with clean filters. Filters may be operated up to a final resistance of 2" w.g. (500 Pa).
4. * Recommended maximum airflow is based on 100 fpm (0.51 m/s) velocity per square foot of filter media face area.
** Maximum airflow shown is based on 150 fpm (0.76 m/s) velocity per square foot of filter media face area. Exceeding these airflows may result in reduced filter efficiencies.
Refer to the engineering section for more details.
5. Data derived from tests conducted in accordance with ANSI/ASHRAE Standard 70 – 1991.



Typical 0.38 m/s Isovel

Performance Data

Model 92RPDF-1SS • 90° Pattern

With HEPA Filter • 99.99% Minimum Removal Efficiency on 0.30 Micrometer Particle Size

Imperial Units

24" x 24" or 600 mm x 600 mm Module Size • 8" (203 mm) dia. Inlet • ΔT – 10°F (5.5°C)

Airflow CFM	Pt	Ps	NC	T Horizontal Throw @			T Vertical Throw @		
				100 FPM	75 FPM	50 FPM	100 FPM	75 FPM	50 FPM
100	.14	.14	–	0.5	1.0	1.5	1.0	1.5	2.5
150	.32	.31	–	1.0	1.5	2.0	2.0	2.5	3.5
200*	.57	.55	16	1.5	2.0	2.5	2.5	3.5	4.0
250	.89	.86	19	2.0	2.5	3.0	3.0	3.5	4.5
295**	1.24	1.19	22	2.0	2.5	3.5	3.5	4.0	5.0

48" x 24" or 1200 mm x 600 mm Module Size • 12" (305 mm) dia. Inlet • ΔT – 10°F (5.5°C)

Airflow CFM	Pt	Ps	NC	T Horizontal Throw @			T Vertical Throw @		
				100 FPM	75 FPM	50 FPM	100 FPM	75 FPM	50 FPM
300	.23	.22	–	0.5	1.0	1.5	1.5	2.0	2.5
400	.40	.39	–	1.0	1.5	2.0	2.0	3.0	4.0
500*	.63	.60	19	1.0	2.0	3.0	2.5	3.5	5.0
600	.91	.87	23	1.5	2.5	3.5	3.0	4.0	6.0
715**	1.29	1.23	28	2.0	3.0	4.0	3.5	4.5	6.5

48" x 12" or 1200 mm x 300 mm Module Size • 8" (203 mm) dia. Inlet • ΔT – 10°F (5.5°C)

Airflow CFM	Pt	Ps	NC	T Horizontal Throw @			T Vertical Throw @		
				100 FPM	75 FPM	50 FPM	100 FPM	75 FPM	50 FPM
100	.14	.14	–	0.5	0.5	1.0	0.5	0.5	1.0
150	.33	.31	–	0.5	1.0	1.5	0.5	1.0	1.5
200*	.58	.56	17	1.0	1.5	2.0	0.5	1.0	1.5
250	.90	.87	20	1.0	1.5	2.5	1.0	1.5	2.0
290**	1.22	1.17	23	1.5	2.0	3.0	1.0	1.5	2.0

CFM - cubic feet per minute

FPM - feet per minute velocity

Pt - total pressure - inches w.g.

Ps - static pressure - inches w.g.

T - throw in feet

NC - Noise Criteria (values) based on 10 dB room absorption, re 10^{-12} watts.

Performance Notes:

1. The radial flow pattern of the **92RPDF-1SS** is unlike conventional air distribution devices. The data presented above describes isovels by average terminal velocity in both horizontal and vertical directions.

2. ΔT is the temperature difference between supply and room air. Testing is based on 10°F (5.5°C) cooling.

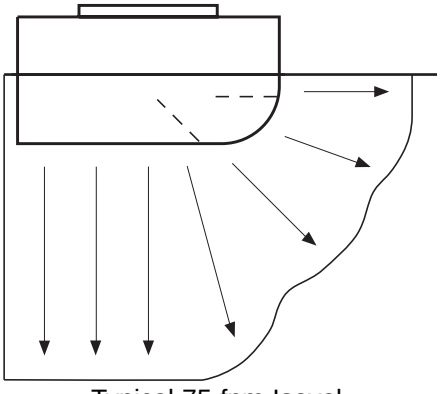
3. Performance data is for diffusers with clean filters. Filters may be operated up to a final resistance of 2" w.g. (500 Pa).

4. * Recommended maximum airflow is based on 100 fpm (0.51 m/s) velocity per square foot of filter media face area.

** Maximum airflow shown is based on 150 fpm (0.76 m/s) velocity per square foot of filter media face area. Exceeding these airflows may result in reduced filter efficiencies.

Refer to the engineering section for more details.

5. Data derived from tests conducted in accordance with ANSI/ASHRAE Standard 70 – 1991.



Typical 75 fpm Isovel

Performance Data

Model 92RPDF-1SS • 90° Pattern

With HEPA Filter • 99.99% Minimum Removal Efficiency on 0.30 Micrometer Particle Size

Metric Units

610 mm x 610 mm or 600 mm x 600 mm Module Size • 8" (203 mm) dia. Inlet • ΔT – 10°F (5.5°C)

Airflow L/S	Pt	Ps	NC	T Horizontal Throw @			T Vertical Throw @		
				0.51 M/S	0.38 M/S	0.25 M/S	0.51 M/S	0.38 M/S	0.25 M/S
47	35	35	–	0.2	0.3	0.5	0.3	0.5	0.8
71	80	77	–	0.3	0.5	0.6	0.6	0.8	1.1
94 *	142	137	16	0.5	0.6	0.8	0.8	1.1	1.2
118	221	214	19	0.6	0.8	0.9	0.9	1.1	1.4
139**	308	296	22	0.6	0.8	1.1	1.1	1.2	1.5

1219 mm x 610 mm or 1200 mm x 600 mm Module Size • 12" (305 mm) dia. Inlet • ΔT – 10°F (5.5°C)

Airflow L/S	Pt	Ps	NC	T Horizontal Throw @			T Vertical Throw @		
				0.51 M/S	0.38 M/S	0.25 M/S	0.51 M/S	0.38 M/S	0.25 M/S
142	57	55	–	0.2	0.3	0.5	0.5	0.6	0.8
189	99	97	–	0.3	0.5	0.6	0.6	0.9	1.2
236*	157	149	19	0.3	0.6	0.9	0.8	1.1	1.5
283	226	216	23	0.5	0.8	1.1	0.9	1.2	1.8
337**	321	306	28	0.6	0.9	1.2	1.1	1.4	2.0

1219 mm x 305 mm or 1200 x 300 mm Module Size • 8" (203 mm) dia. Inlet • ΔT – 10°F (5.5°C)

Airflow L/S	Pt	Ps	NC	T Horizontal Throw @			T Vertical Throw @		
				0.51 M/S	0.38 M/S	0.25 M/S	0.51 M/S	0.38 M/S	0.25 M/S
47	35	35	–	0.2	0.2	0.3	0.2	0.2	0.3
71	82	77	–	0.2	0.3	0.5	0.2	0.3	0.5
94 *	144	139	17	0.3	0.5	0.6	0.2	0.3	0.5
118	224	216	20	0.3	0.5	0.8	0.3	0.5	0.6
137**	303	291	23	0.5	0.6	0.9	0.3	0.5	0.6

L/S - litres per second

M/S - meters per second velocity

Pt - total pressure - Pa

Ps - static pressure - Pa

T - throw in meters

NC - Noise Criteria (values) based on 10 dB room absorption, re 10^{-12} watts.

Performance Notes:

1. The radial flow pattern of the **92RPDF-1SS** is unlike conventional air distribution devices. The data presented above describes isovels by average terminal velocity in both horizontal and vertical directions.

2. ΔT is the temperature difference between supply and room air. Testing is based on 10°F (5.5°C) cooling.

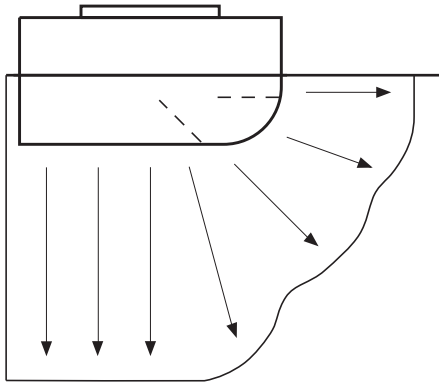
3. Performance data is for diffusers with clean filters. Filters may be operated up to a final resistance of 2" w.g. (500 Pa).

4. * Recommended maximum airflow is based on 100 fpm (0.51 m/s) velocity per square foot of filter media face area.

** Maximum airflow shown is based on 150 fpm (0.76 m/s) velocity per square foot of filter media face area. Exceeding these airflows may result in reduced filter efficiencies.

Refer to the engineering section for more details.

5. Data derived from tests conducted in accordance with ANSI/ASHRAE Standard 70 – 1991.



Typical 0.38 m/s Isovel

Performance Data

Model 92RPDF-2SS • 180° Pattern

With ULPA Filter • 99.9995% Minimum Removal Efficiency on 0.12 Micrometer Particle Size

Imperial Units

24" x 24" or 600 mm x 600 mm Module Size • 8" (203 mm) dia. Inlet • ΔT – 10°F (5.5°C)

Airflow CFM	Pt	Ps	NC	T Horizontal Throw @			T Vertical Throw @		
				100 FPM	75 FPM	50 FPM	100 FPM	75 FPM	50 FPM
100	.17	.16	–	0.5	0.5	1.0	0.5	1.0	1.5
150	.38	.37	–	0.5	1.0	1.0	1.0	1.0	2.0
200*	.68	.66	16	0.5	1.0	1.5	1.5	2.0	3.0
250	1.06	1.02	19	1.0	1.5	2.0	2.0	2.5	3.5
295**	1.47	1.43	22	1.0	1.5	2.0	2.5	3.0	4.0

48" x 24" or 1200 mm x 600 mm Module Size • 12" (305 mm) dia. Inlet • ΔT – 10°F (5.5°C)

Airflow CFM	Pt	Ps	NC	T Horizontal Throw @			T Vertical Throw @		
				100 FPM	75 FPM	50 FPM	100 FPM	75 FPM	50 FPM
300	.27	.26	–	0.5	0.5	1.0	0.5	1.0	1.5
400	.48	.46	–	0.5	1.0	1.5	0.5	1.0	2.0
500*	.74	.72	19	1.0	1.0	1.5	1.0	1.5	2.0
600	1.07	1.03	23	1.0	1.5	2.0	1.5	2.0	2.5
715**	1.52	1.47	28	1.5	2.0	2.5	2.0	2.5	3.0

CFM - cubic feet per minute

FPM - feet per minute velocity

Pt - total pressure - inches w.g.

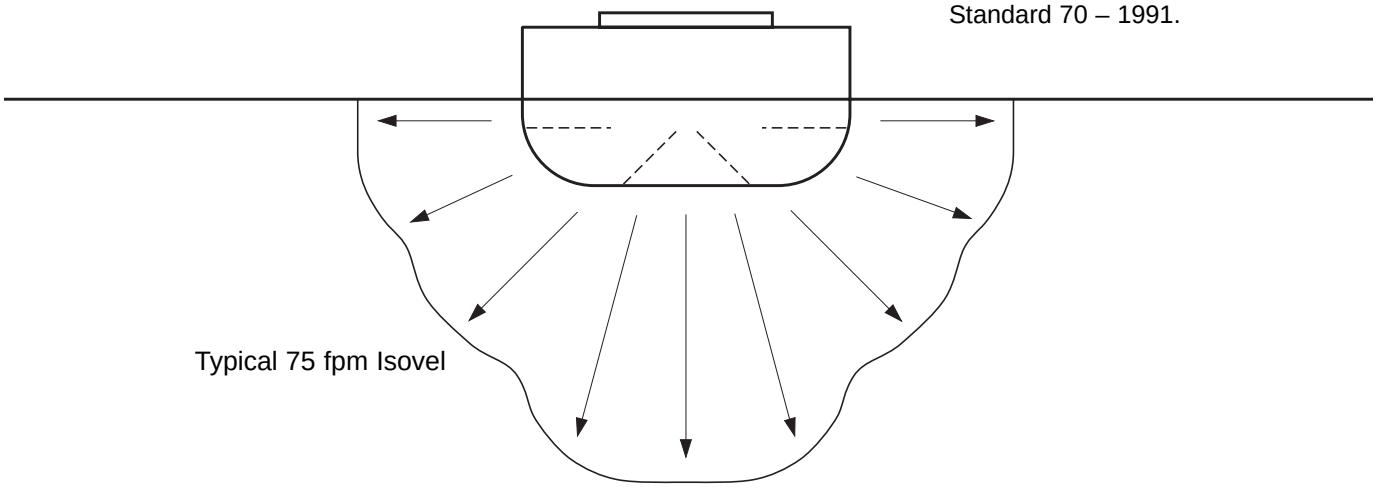
Ps - static pressure - inches w.g.

T - throw in feet

NC - Noise Criteria (values) based on 10 dB room absorption, re 10^{-12} watts.

Performance Notes:

1. The radial flow pattern of the **92RPDF-2SS** is unlike conventional air distribution devices. The data presented above describes isovels by average terminal velocity in both horizontal and vertical directions.
2. ΔT is the temperature difference between supply and room air. Testing is based on 10°F (5.5°C) cooling.
3. Performance data is for diffusers with clean filters. Filters may be operated up to a final resistance of 2" w.g. (500 Pa).
4. * Recommended maximum airflow is based on 100 fpm (0.51 m/s) velocity per square foot of filter media face area.
** Maximum airflow shown is based on 150 fpm (0.76 m/s) velocity per square foot of filter media face area. Exceeding these airflows may result in reduced filter efficiencies.
Refer to the engineering section for more details.
5. Data derived from tests conducted in accordance with ANSI/ASHRAE Standard 70 – 1991.



Typical 75 fpm Isovel

Performance Data

Model 92RPDF-2SS • 180° Pattern

With ULPA Filter • 99.9995% Minimum Removal Efficiency on 0.12 Micrometer Particle Size

Metric Units

610 mm x 610 mm or 600 mm x 600 mm Module Size • 8" (203 mm) dia. Inlet • ΔT – 10°F (5.5°C)

Airflow L/S	Pt	Ps	NC	T Horizontal Throw @			T Vertical Throw @		
				0.51 M/S	0.38 M/S	0.25 M/S	0.51 M/S	0.38 M/S	0.25 M/S
47	42	40	–	0.2	0.2	0.3	0.2	0.3	0.5
71	94	92	–	0.2	0.3	0.3	0.3	0.3	0.6
94 *	169	164	16	0.2	0.3	0.5	0.5	0.6	0.9
118	264	254	19	0.3	0.5	0.6	0.6	0.8	1.1
139**	365	355	22	0.3	0.5	0.6	0.8	0.9	1.2

1219 mm x 610 mm or 1200 mm x 600 mm Module Size • 12" (305 mm) dia. Inlet • ΔT – 10°F (5.5°C)

Airflow L/S	Pt	Ps	NC	T Horizontal Throw @			T Vertical Throw @		
				0.51 M/S	0.38 M/S	0.25 M/S	0.51 M/S	0.38 M/S	0.25 M/S
142	67	65	–	0.2	0.2	0.3	0.2	0.3	0.5
189	119	114	–	0.2	0.3	0.5	0.2	0.3	0.6
236*	184	179	19	0.3	0.3	0.5	0.3	0.5	0.6
283	266	256	23	0.3	0.5	0.6	0.5	0.6	0.8
337**	378	365	28	0.5	0.6	0.8	0.6	0.8	0.9

L/S - litres per second

M/S - meters per second velocity

Pt - total pressure - Pa

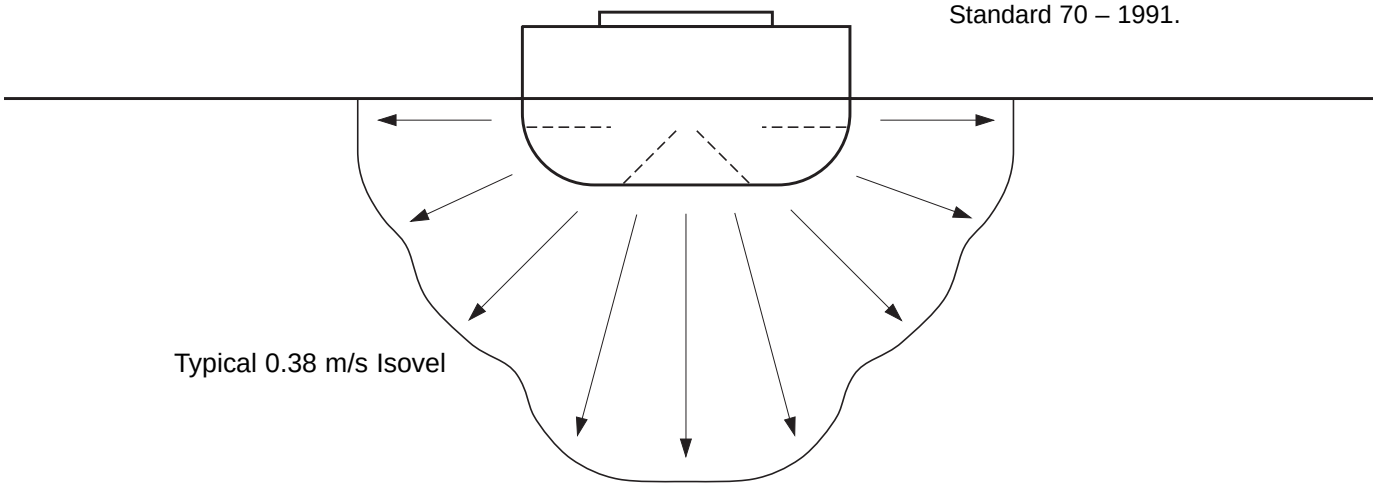
Ps - static pressure - Pa

T - throw in meters

NC - Noise Criteria (values) based on 10 dB room absorption, re 10^{-12} watts.

Performance Notes:

1. The radial flow pattern of the **92RPDF-2SS** is unlike conventional air distribution devices. The data presented above describes isovels by average terminal velocity in both horizontal and vertical directions.
2. ΔT is the temperature difference between supply and room air. Testing is based on 10°F (5.5°C) cooling.
3. Performance data is for diffusers with clean filters. Filters may be operated up to a final resistance of 2" w.g. (500 Pa).
4. * Recommended maximum airflow is based on 100 fpm (0.51 m/s) velocity per square foot of filter media face area.
** Maximum airflow shown is based on 150 fpm (0.76 m/s) velocity per square foot of filter media face area. Exceeding these airflows may result in reduced filter efficiencies.
Refer to the engineering section for more details.
5. Data derived from tests conducted in accordance with ANSI/ASHRAE Standard 70 – 1991.



Typical 0.38 m/s Isovel

Performance Data

Model 92RPDF-1SS • 90° Pattern

With ULPA Filter • 99.9995% Minimum Removal Efficiency on 0.12 Micrometer Particle Size

Imperial Units

24" x 24" or 600 mm x 600 mm Module Size • 8" (203 mm) dia. Inlet • ΔT – 10°F (5.5°C)

Airflow L/S	Pt	Ps	NC	T Horizontal Throw @			T Vertical Throw @		
				100 FPM	75 FPM	50 FPM	100 FPM	75 FPM	50 FPM
100	.17	.17	–	0.5	1.0	1.5	1.0	1.5	2.5
150	.38	.37	–	1.0	1.5	2.0	2.0	2.5	3.5
200*	.68	.66	16	1.5	2.0	2.5	2.5	3.5	4.0
250	1.07	1.03	19	1.0	2.5	3.0	3.0	3.5	4.5
295**	1.49	1.44	22	2.0	2.5	3.5	3.5	4.0	5.0

48" x 24" or 1200 mm x 600 mm Module Size • 12" (305 mm) dia. Inlet • ΔT – 10°F (5.5°C)

Airflow CFM	Pt	Ps	NC	T Horizontal Throw @			T Vertical Throw @		
				100 FPM	75 FPM	50 FPM	100 FPM	75 FPM	50 FPM
300	.27	.26	–	0.5	1.0	1.5	1.5	2.0	2.5
400	.48	.46	–	1.0	1.5	2.0	2.0	3.0	4.0
500*	.75	.72	19	1.0	2.0	3.0	2.5	3.5	5.0
600	1.08	1.04	23	1.5	2.5	3.5	3.0	4.0	6.0
715**	1.53	1.48	28	2.0	3.0	4.0	3.5	4.5	6.5

48" x 12" or 1200 mm x 300 mm Module Size • 8" (203 mm) dia. Inlet • ΔT – 10°F (5.5°C)

Airflow CFM	Pt	Ps	NC	T Horizontal Throw @			T Vertical Throw @		
				100 FPM	75 FPM	50 FPM	100 FPM	75 FPM	50 FPM
100	.17	.17	–	0.5	0.5	1.0	0.5	0.5	1.0
150	.39	.38	–	0.5	1.0	1.5	0.5	1.0	1.5
200*	.69	.67	17	1.0	1.5	2.0	0.5	1.0	1.5
250	1.08	1.04	20	1.0	1.5	2.5	1.0	1.5	2.0
290**	1.45	1.40	23	1.5	2.0	3.0	1.0	1.5	2.0

CFM - cubic feet per minute

FPM - feet per minute velocity

Pt - total pressure - inches w.g.

Ps - static pressure - inches w.g.

T - throw in feet

NC - Noise Criteria (values) based on 10 dB room absorption, re 10^{-12} watts.

Performance Notes:

1. The radial flow pattern of the **92RPDF-1SS** is unlike conventional air distribution devices. The data presented above describes isovels by average terminal velocity in both horizontal and vertical directions.

2. ΔT is the temperature difference between supply and room air. Testing is based on 10°F (5.5°C) cooling.

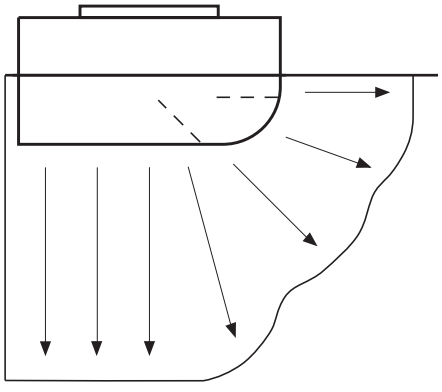
3. Performance data is for diffusers with clean filters. Filters may be operated up to a final resistance of 2" w.g. (500 Pa).

4. * Recommended maximum airflow is based on 100 fpm (0.51 m/s) velocity per square foot of filter media face area.

** Maximum airflow shown is based on 150 fpm (0.76 m/s) velocity per square foot of filter media face area. Exceeding these airflows may result in reduced filter efficiencies.

Refer to the engineering section for more details.

5. Data derived from tests conducted in accordance with ANSI/ASHRAE Standard 70 – 1991.



Typical 75 fpm Isovel

Performance Data

Model 92RPDF-1SS • 90° Pattern

With ULPA Filter • 99.9995% Minimum Removal Efficiency on 0.12 Micrometer Particle Size

Metric Units

610 mm x 610 mm or 600 mm x 600 mm Module Size • 8" (203 mm) dia. Inlet • ΔT – 10°F (5.5°C)

Airflow L/S	Pt	Ps	NC	T Horizontal Throw @			T Vertical Throw @		
				0.51 M/S	0.38 M/S	0.25 M/S	0.51 M/S	0.38 M/S	0.25 M/S
47	42	42	–	0.2	0.3	0.5	0.3	0.5	0.8
71	94	92	–	0.3	0.5	0.6	0.6	0.8	1.1
94 *	169	164	16	0.5	0.6	0.8	0.8	1.1	1.2
118	266	256	19	0.6	0.8	0.9	0.9	1.1	1.4
139**	370	358	22	0.6	0.8	1.1	1.1	1.2	1.5

1219 mm x 610 mm or 1200 mm x 600 mm Module Size • 12" (305 mm) dia. Inlet • ΔT – 10°F (5.5°C)

Airflow L/S	Pt	Ps	NC	T Horizontal Throw @			T Vertical Throw @		
				0.51 M/S	0.38 M/S	0.25 M/S	0.51 M/S	0.38 M/S	0.25 M/S
142	67	65	–	0.2	0.3	0.5	0.5	0.6	0.8
189	119	114	–	0.3	0.5	0.6	0.6	0.9	1.2
236*	186	179	19	0.3	0.6	0.9	0.8	1.1	1.5
283	268	259	23	0.5	0.8	1.1	0.9	1.2	1.8
337**	380	368	28	0.6	0.9	1.2	1.1	1.4	2.0

1219 mm x 305 mm or 1200 mm x 300 mm Module Size • 8" (203 mm) dia. Inlet • ΔT – 10°F (5.5°C)

Airflow L/S	Pt	Ps	NC	T Horizontal Throw @			T Vertical Throw @		
				0.51 M/S	0.38 M/S	0.25 M/S	0.51 M/S	0.38 M/S	0.25 M/S
47	42	42	–	0.2	0.2	0.3	0.2	0.2	0.3
71	97	94	–	0.2	0.3	0.5	0.2	0.3	0.5
94 *	172	167	17	0.3	0.5	0.6	0.2	0.3	0.5
118	268	259	20	0.3	0.5	0.8	0.3	0.5	0.6
137**	360	348	23	0.5	0.6	0.9	0.3	0.5	0.6

L/S - litres per second

M/S - meters per second velocity

Pt - total pressure - Pa

Ps - static pressure - Pa

T - throw in meters

NC - Noise Criteria (values) based on 10 dB room absorption, re 10^{-12} watts.

Performance Notes:

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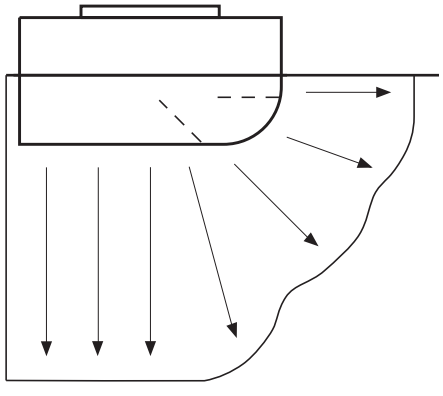

Typical 0.38 m/s Isovel